

instruction currently indicated by the user or to change a no-mute instruction previously indicated by the user to a mute instruction currently indicated by the user.

5 In cases where the pushing of the mute button 82a is judged, it is judged in a step S102 whether or not a mute button flag stored in the mute button flag buffer 85 indicates a mute instruction. The mute button flag is set when the pushing of the mute button 82a is judged in a previous routine of the mute control, and the mute instruction and the no-mute
10 instruction of the mute button flag are alternately selected each time the pushing of the mute button 82a is judged.

In cases where the mute button flag indicates a mute instruction, because the mute instruction is selected in a previous routine of the mute control, the indication of the
15 mute button flag is changed to a no-mute instruction in a step S103. Thereafter, because the pushing of the mute button 82a currently performed by the user indicates the no-mute instruction, the mute control is not selected, and the mute circuit 88 is set to a "OFF" condition in a step S104. That
20 is, the operation of the mute circuit 88 is stopped. Therefore, the sound quality adjusted analog audio signals are output from the audio signal reproducing apparatus 80, and the user can listen to a music.

In contrast, in cases where the mute button flag indicates
25 a no-mute instruction in the step S102, because the no-mute

audio signals for each of a plurality of channels, and
each piece of sound quality control information includes
graphic equalizer information indicating the change of the
original levels of the pieces of audio data of the digital
5 audio signal for each frequency band, level balance
information indicating the change of the original levels of
the pieces of audio data of the digital audio signal for each
channel or reverberation adding information indicating the
addition of reverberation to the music.

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46. An audio signal processing and reproducing method
according to claim 40 in which the step of arranging each of
the digital audio signals comprises the steps of:

limiting a frequency band of one digital audio signal to
15 produce a series of band limited audio data of a band limited
digital audio signal from the digital audio signal for each
digital audio signal;

removing pieces of band limited audio data from the series
of band limited audio data at prescribed intervals to produce
20 a series of sampling frequency reduced data $\{X_{ci}\}$ (i is a
positive integral number) of a sampling frequency reduced
signal from the series of band limited audio data;

thinning out pieces of data of the digital audio signal at
prescribed intervals to produce a series of thinned-out audio
25 data $\{X_{bi}, X_{ai}\}$ of a thinned-out audio signal in which the